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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

13 GOOGLE LLC,
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15 Plaintiff,
16
17 SONOS, INC.,
18
19 Defendants.

Case No. 3:20-cv-06754 WHA
Related to Case No. 4:21-07559

**JOINT CLAIM CONSTRUCTION
AND PRE-HEARING STATEMENT
PURSUANT TO PATENT LOCAL
RULE 4-3**

JURY TRIAL DEMANDED

20 SONOS, INC.,
21
22 Plaintiff,
23
24 GOOGLE LLC.,
25
26 Defendants.

Case No. 3:20-cv-06754 WHA
Case No. 4:21-cv-07559-WHA

INTRODUCTION

Pursuant to this Court’s October 8, 2021 Case Management Order (Dkt. 67), the Standing Order for All Judges of the Northern District of California, and Patent Local Rule 4-3, Sonos Inc. (“Sonos”) and Google LLC (“Google”) submit this Joint Claim Construction and Pre-Hearing Statement for claim terms in U.S. Patents No. 9,967,615 (“615 Patent”), 10,779,033 (“033 Patent”), 10,469,966 (“966 Patent”), and 10,848,885 (“885 Patent”) (collectively the “patents-in-suit” or the “Asserted Patents”).

I. THE PRIOR CLAIM CONSTRUCTION PROCEEDINGS.

A. Google's Position

Sonos filed its patent infringement action in the Western District of Texas and urged the court in Texas to proceed with claim construction proceedings over Google’s objections and while Google’s transfer motion was pending. At Sonos’s request, the Texas court construed a number of the terms in the asserted patents. *See Sonos, Inc. v. Google LLC*, Case No. Case 6:20-cv-00881-ADA, W.D. Tex., August 10, 2021 Markman Hearing Transcript, Dkt. No. 106 (“Texas Markman Tr.”).¹ Sonos requested the jurisdiction of the Texas court over Google’s objection and received claim constructions as it requested. Now Sonos seeks to re-do the claim constructions it sought, which is improper. Thus, in the instant case and in view of Sonos’s litigation positions, the prior constructions and indefiniteness rulings provided by the Texas court continue to apply to Sonos, and the Court should only revisit those constructions in the event that new evidence or new positions require it.

Sonos's assertion that Google is attempting to "re-do claim construction in this case" has it backwards. The two terms that Google has proposed—"resource locator" and "playback device" were not part of the claim construction briefing and the Texas court did not rule on the construction

¹ Sonos's claim that the Texas Court issued "no final" order is inaccurate. See, e.g., Texas Markman Tr. at 38:1-3 (stating for the term "zone scene" that "[t]he construction for that claim term is going to be: A previously-saved group of zone players according to a common theme."), 67:1-2 ("I'm going to maintain the construction of it being indefinite."). Sonos has not cited to any case that holds a written order is always necessary, or that an oral order is insufficient.

1 of either of these terms. Indeed, Sonos admits that the term “resource locator” was not construed in
2 the Texas action. Sonos’s contention that “playback queue” was construed “via” the term “remote
3 playback queue” is also inaccurate. The parties previously disputed whether a “remote playback
4 queue” needed to be provided by a third-party, with Google proposing that the term be construed as
5 a “remote playback queue provided by a third party application.” Neither party proposed a
6 construction for the term “playback queue,” and Google is not re-raising the term “remote playback
7 queue” before this Court. Google is not attempting to re-do claim construction.

8 Instead, Google is requesting supplemental claim construction for previously-unconstrued
9 terms where the dispute between the parties as to their meaning arises from new evidence that Sonos
10 served after the prior claim construction hearing. For example, after the claim construction hearing,
11 Sonos served infringement contentions that for the first time alleged that an identifier in Google’s
12 products are a “resource locator,” and just recently Sonos was ordered to supplement its
13 infringement contentions to identify what it was claiming as the “local playback queue.” Thus, the
14 dispute for both of these previously-unconstrued terms arises from new evidence that was not in the
15 record at the time of the prior claim construction proceeding. In contrast, Sonos is attempting simply
16 to re-litigate other previously construed terms that are unfavorable to it, based on the same evidence
17 that the Western District court already considered. Google contends that there is no proper basis for
18 reconsideration here of the following claim constructions from the Western District court:

Claim No.	Claim Term	Texas Court’s Construction
1	“ multimedia ” [’615 Patents]	Plain and ordinary meaning
2	“ network interface ” [’615, ’885 Patents]	Plain and ordinary meaning
3	“ playback device ” / “ zone player ” [’615, ’033 Patents] / [’966 and ’885 Patents]	Plain and ordinary meaning; “Zone player” means “playback device”
4	“ zone ” [’966 and ’885 Patents]	Plain and ordinary meaning

Claim No.	Claim Term	Texas Court's Construction
5	“zone scene” [’966 and ’885 Patent]	A previously saved grouping of zone players according to a common theme
6	“[first / second] zone scene comprising a [first / second] predefined grouping of zone players including at least the first zone player and a [second / third] zone player that are to be configured for synchronous playback of media when the [first / second] zone scene is invoked” [’966 and ’885 Patents]	Plain and ordinary meaning. “Zone scene” construed as <i>“a previously saved grouping of zone players according to a common theme.”</i>
7	“local area network” [’615 Patent]	Plain and ordinary meaning
8	“cloud” [’615 and ’033 Patents]	Plain and ordinary meaning
9	“a media particular playback system” [’615 Patent]	Indefinite
10	“data network” [’966, ’033, ’885 Patents]	Plain and ordinary meaning
11	“remote playback queue” [’033 Patent]	Plain and ordinary meaning
12	“an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to” [’033 Patent]	Plain and ordinary meaning
13	“wherein the instruction comprises an instruction” [’033 Patent]	Plain and ordinary meaning

B. Sonos’s Position

Google is attempting to simultaneously (i) have this Court find that the constructions suggested by the Texas court are binding and (ii) re-do claim construction in this case. It cannot have it both ways. Google is correct insofar as the parties previously complied with the operative standing order in the Western District of Texas to exchange claim terms, proposed constructions, intrinsic and extrinsic evidence, and briefing (much like this Court’s Patent Local Rules 4-1 to 4-6).

1 While the Texas Court held a *Markman* hearing, it never issued any final claim construction order
2 or opinion. Nevertheless, Google would have this Court treat that hearing (and that entire claim
3 construction process) as “final” *while at the same time* asking this Court to (i) construe an entirely
4 new term that Google never even raised in Texas and (ii) re-construe a term that was already the
5 subject of *Markman* in Texas. Google cannot have it both ways – it cannot preclude Sonos from
6 asking this Court to construe certain terms, yet turn around and ask this Court for the very same
7 thing.

8 The Texas Court held a *Markman* hearing but issued no final claim construction order and
9 no opinion and order holding any claims indefinite from which Sonos could seek appellate or other
10 review. At Google’s request, the Federal Circuit ordered the Western District of Texas to transfer
11 the case to the Northern District of California. The Western District of Texas did so before it had a
12 chance to issue any opinion and order stemming from the *Markman* proceedings. Thus, Google’s
13 attempt to foreclose Sonos from asking this Court to construe certain claims is improper. *See*
14 *OSRAM Sylvania, Inc. v. Am. Induction Techs., Inc.*, 701 F.3d 698, 707 (Fed. Cir. 2012) (“Whether
15 dealing with an issue of law like claim construction or an issue of fact such as infringement, this
16 court must be furnished sufficient findings and reasoning to permit meaningful appellate scrutiny.”);
17 *id.* (“Where, as here, the record is devoid of meaningful analysis, we will not conduct such an
18 analysis in the first instance.”).

19 This Court is not bound by the *Markman* proceedings held in the Western District of Texas
20 and ought to resolve claim construction disputes on the record that is brought to the Court. *See*
21 *Camreta v. Greene*, 563 U.S. 692, 709 n.7 (2011) (“A decision of a federal district court judge is
22 not binding precedent in either a different judicial district, the same judicial district, or even upon
23 the same judge in a different case.”); *accord Norman IP Holdings, LLC v. Lexmark Int’l, Inc.*, No.
24 6:11-CV-495, 2012 WL 3307942, at *4 (E.D. Tex. Aug. 10, 2012)(“Once a case is transferred, the
25 transferee court is of course not bound by the claim construction of this court, and may modify it if
26 it believes it is appropriate.”).

27 Google’s claim that the Western District of Texas’s “constructions” are somehow final and
28 binding (despite the absence of any opinion and order construing the claims) is also belied by the

1 fact that Google is now asking this court to construe a term (“**playback queue**”) that it argues was
2 already construed by the Western District of Texas (via “remote playback queue”) as well as a term
3 (“**resource locator**”) that it failed to ask the Western District of Texas to construe.

4 Even if the Western District of Texas’s *Markman* proceedings could be considered
5 construction of certain claim terms, the Western District of Texas was clear that for terms it was
6 preliminarily inclined to hold as “plain and ordinary meaning,” the Texas court believed that this
7 meant that no construction was necessary at that time and that no party was precluded from asserting
8 later that a particular meaning constituted the plain and ordinary meaning. *See* 8/10/21 Hr’g Tr. at
9 6:2-14:

10 **MR. RICHTER:** So we understand that the Court’s preliminary
11 construction of plain and ordinary meaning is an indication that the
12 Court believes that no construction is necessary at this time and that
13 Sonos would not be precluded from asserting at a later time, for
14 example, in a summary judgment motion or pretrial proceeding, that
15 the plain and ordinary meaning of these terms as understood in the
16 context of the patents-in-suit is the construction that Sonos is now
17 proposing.

18 **THE COURT:** You’re absolutely right.

19 **II. AGREED CONSTRUCTIONS (P.L.R. 4-3(A))**

20 The Parties have not stipulated to the constructions for any terms.

21 **III. THE PARTIES’ PROPOSED CONSTRUCTIONS (P.L.R. 4-3(B))**

22 Appendix A sets forth proposed constructions of each disputed term, together with an
23 identification of all references from the specification or prosecution history that support that
24 construction, and an identification of any extrinsic evidence known to the party on which it intends
25 to rely either to support its proposed construction or to oppose any proposed construction, including,
26 but not limited to, as permitted by law, dictionary definitions, citations to learned treatises and prior
27 art, and testimony of percipient and expert witnesses. Terms in Appendix A are not ranked in any
28 fashion.

29 As mentioned previously (*see* Section I), certain of the terms in Appendix A were construed
30 by the Texas court prior to transfer. These terms have been marked with an asterisk in Appendix

1 A. By including terms in Appendix A, and for the reasons set forth above, Google does not agree
2 that Sonos may request reconsideration of those claim terms.

3 **IV. TOP FIVE TERMS FOR CONSTRUCTION (P.L.R. 4-3(C) & DKT. 67, ¶ 22)**

4 The Parties jointly identify the following five (5) claim terms as the most significant at this
5 time to resolution of the case. Terms are not ranked in any fashion.

6

- 7 “playback device”
- 8 “zone player”
- 9 “media particular playback system”
- 10 “playback queue”
- 11 “resource locators”

12 The Parties’ five terms appear as the first five terms included in Appendix A, and are also
13 not ranked in any fashion in Appendix A. Appendix A includes additional terms that are not part of
14 the top five and whose order in the chart is of no significance.

15 Google believes that the dispute relating to the following claim terms would be potentially
16 claim dispositive:

17

- 18 “playback queue” (at least as to the ’615 patent, all asserted claims)
- 19 “resource locators” (at least as to the ’615 patent, all asserted claims)

20 Sonos does not believe that any claim construction dispute would be case dispositive for at
21 least the reason that Google has not explained why it believes that it would not infringe under its
22 proposed claim constructions. Sonos intends to move the Court for leave to amend its
23 infringement contentions to address Google’s proposed constructions pursuant to Patent Local Rule
24 3-6 and the Court’s Case Management Order, Dkt. 67 at ¶17.

25 **V. ANTICIPATED LENGTH OF TIME FOR HEARING (P.L.R. 4-3(D))**

26 The Parties understand that the Court ordinarily does not conduct Markman hearings
27 independent of motions for summary judgment. If the Court were inclined to conduct a Markman
28 hearing in this matter, the parties respectfully request a hearing of three (3) hours.

29 **VI. WITNESSES AT THE CLAIM CONSTRUCTION HEARING (P.L.R. 4-3(E))**

30 The Parties agree that there will be no witnesses called at any Claim Construction Hearing.

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1 **VII. IDENTIFICATION OF FACTUAL FINDINGS REQUESTED BY THE COURT (P.L.R. 4-3(F))**

2 The parties do not request any factual findings related to claim construction from the Court.

3

4 Dated: February 4, 2022

Respectfully submitted,

5 */s/ Cole B. Richter*

6 Cole B. Richter
Attorneys for SONOS, INC.

7 LEE SULLIVAN SHEA SMITH LLP

/s/ Charles K. Verhoeven

Charles K. Verhoeven
Attorneys for GOOGLE LLC

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10 **ECF ATTESTATION**

11 I, Cole B. Richter, am the ECF User whose ID and password are being used to file this Joint

12 Claim Construction and Pre-Hearing Statement. In compliance with General Order 45, X.B., I

13 hereby attest that the signatories have concurred in this filing.

14 Dated: February 4, 2022

15 By: */s/ Cole B. Richter*

16 Cole B. Richter

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Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
“playback device”*	‘615 Pat. ‘033 Pat. (all claims)	<p><i>“a data network device configured to process and output audio”</i></p> <ul style="list-style-type: none"> ● ‘615 Patent at e.g. 3:38-4:25, 4:13-18, 5:21-23, 5:29-46, 7:5-8:23, 8:4-48, 10:59-11:11, 11:58-12:3, 16:1-4, FIGs. 2A-2C, 4 (and corresponding citations in the ‘033 Patent); ● Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: <ul style="list-style-type: none"> ○ Sonos’s Opening Claim Construction Brief, including all Exhibits; ○ Sonos’s Reply Claim Construction Brief, including all Exhibits; ○ Google’s Responsive Claim Construction Brief, including all Exhibits; ○ Google’s Sur-Reply Claim Construction Brief, including all Exhibits; ● Prior documents from <i>Sonos, Inc. v. D&M Holdings Inc. et al</i>, 14-cv-1330, including Court’s <i>Markman</i> opinion (Dkt. 219) regarding certain claim terms (SONOS- 	<p><i>The Western District of Texas Court already construed this term to have its plain and ordinary meaning.</i></p> <p><u>INTRINSIC EVIDENCE</u>³</p> <p>‘033 Patent at 2:8-19; 3:15-23; 3:36-39; 3:46-60; 4:40-48; 7:29-9:13; 12:16-27; 12:16-13:56; 15:47-53</p> <p><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● IEEE 100 <i>The Authoritative Dictionary of IEEE Standards Terms</i>, 7th Edition (2000) ● IEEE 100 <i>The Authoritative Dictionary of IEEE Standards Terms</i>, 7th Edition (2000) <p>playback (1) A term used to denote reproduction of a recording (EEC/PE) [119] (2) See also: reversible execution. (C) 610.12-1990 (3) To output data or text for review purposes. <i>Synonyms:</i> playout; printout. (C) 610.10-1994w</p> ● Dictionary of Multimedia Terms and Acronyms, 4th Edition (2005)

² For terms marked with an asterisk—indicating that they were construed by the Texas court prior to transfer—Google includes the same construction adopted by the Texas Court. Google does not agree that these terms should be subject to reconsideration.

³ For all of the asserted patents, where Google identifies a figure from the specification of a given patent-in-suit, it also identifies the associated text describing said figure and reserves the right to rely on it. Where Google identifies a portion of the specification referencing a figure, it also identifies the figure and reserves the right to rely on it.

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
		<p>SVG2-00018339) and Court’s Daubert opinion (Dkt. 427) (SONOS-SVG2-00018370); and</p> <ul style="list-style-type: none"> Prior documents from <i>Certain Audio Players and Controllers, Components thereof, and Products Containing Same</i>, Inv. No. 337-TA-119, including Order 20: Construing the Terms of the Asserted Claims of the Patents at Issue (Sept. 25, 2020) (SONOS-SVG2-00018184). 	<p>playback (n.) The realization of recorded images or sound on any kind of audio or video equipment.</p>
“zone player”*	‘966 Pat. ‘885 Pat. (all claims)	<p><i>“a data network device configured to process and output audio”</i></p> <ul style="list-style-type: none"> ‘885 Patent at e.g. 4:56-57, 4:62-5:15, 5:36-6:13, 7:60-65, FIG. 1, 2A (and corresponding citations in the ‘966 Patent); Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: <ul style="list-style-type: none"> Sonos’s Opening Claim Construction Brief, including all Exhibits; Sonos’s Reply Claim Construction Brief, including all Exhibits; Google’s Responsive Claim Construction Brief, including all Exhibits; Google’s Sur-Reply Claim Construction Brief, including all Exhibits; Prior documents from <i>Sonos, Inc. v. D&M Holdings Inc. et al</i>, 14-cv-1330, including Court’s <i>Markman</i> opinion (Dkt. 219) 	<p><i>The Western District of Texas Court already construed the term “zone player” (along with “playback device”) and found “zone player” to mean playback device.</i></p> <p><u>INTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ‘966 at 8:52-61; 5:57-6:8; 9:15-35 <p><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> Google may introduce expert testimony from Dr. Kyriakakis regarding the ordinary meaning of this term to a person of ordinary skill in the art in the context of the intrinsic record, including the opinion that Google’s proposed construction is consistent with that meaning. Declaration of Kyriakakis dated June 1, 2021 (Case No. 6:20-cv-00881-ADA, Dkt 64-12) Hargrave’s Communications Dictionary (2001)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
		<p>regarding certain claim terms (SONOS-SVG2-00018339) and Court’s Daubert opinion (Dkt. 427) (SONOS-SVG2-00018370); and</p> <ul style="list-style-type: none"> • Prior documents from <i>Certain Audio Players and Controllers, Components thereof, and Products Containing Same</i>, Inv. No. 337-TA-119, including Order 20: Construing the Terms of the Asserted Claims of the Patents at Issue (Sept. 25, 2020) (SONOS-SVG2-00018184) 	<p>zone (1) In an internetwork, a subset of nodes which, together, form a logical subdivision. A node can be part of one or more zones. A zone can encompass multiple networks and can cross network boundaries. (That is, it can apply to parts of several networks.) A zone may have a name associated with it that is used to simplify routing and service advertising. (2) In AppleTalk, A logical subset of nodes which together form a subdivision. It can have an associated name, and a node can be part of one or more zones. The zone name is used to simplify routing and service advertising. A zone can encompass multiple networks and can cross network boundaries (that is, apply to parts of several networks).</p>
“a media particular playback system”*	‘615 Pat. (asserted claims 15, 26)	<p>“a media playback system”</p> <ul style="list-style-type: none"> • Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: <ul style="list-style-type: none"> ◦ Sonos’s Opening Claim Construction Brief, including all Exhibits; ◦ Sonos’s Reply Claim Construction Brief, including all Exhibits; ◦ Google’s Responsive Claim Construction Brief, including all Exhibits; 	<p><i>The Western District of Texas Court already found this term to be indefinite.</i></p> <p style="text-align: center;"><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> • Declaration of Kyriakakis dated June 1, 2021 (Case No. 6:20-cv-00881-ADA, Dkt 64-12)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
		<ul style="list-style-type: none"> ○ Google's Sur-Reply Claim Construction Brief, including all Exhibits; ● '615 Patent at e.g. Abstract, 1:66-2:1, 2:51-57, 2:60-3:1, 3:5-13, 12:44-67, 15:51-57, 16:11-13, 16:35-40, claims 2, 14; ● '615 Prosecution History, Oct. 25, 2016 Office Action Response; ● Prior expert testimony of Dr. Schmidt. 	
“playback queue”	'615 Pat.(all claims); '033 (all asserted claims)	<p><i>Plain and ordinary meaning; no construction necessary</i></p> <ul style="list-style-type: none"> ● '615 Patent at 2:51-3:13, 10:3-8, 10:42-46, 11:9-11, 11:62-12:3, 12:18-67, 13:1-22, 13:23-40, 14:50-58, 15:12-16, 15:51-57, 15:58-67, 16:1-8, 16:20-35, 16:53-17:20, FIG. 7 (and corresponding citations in the '033 Patent); ● '615 Prosecution History, April 5, 2017 Office Action Response; ● '615 Prosecution History, May 9, 2017 Office Action; ● '615 Prosecution History, August 28, 2017 Office Action Response; ● '033 Patent at 2:61-3:23, 12:6-13:19, 13:20-27, 16:59-67, 17:8-16, FIG. 7; ● '033 Patent Prosecution History, Oct. 28, 	<p><i>“an ordered list of multimedia items that is selected by the user for playback”</i></p> <p><u>INTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● '615 patent, 12:31-67; 16:20-31; 16:52-62; 16:62-17:4; Figs. 4, 7, 9-11 <p><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● Google may introduce expert testimony from Dr. Kyriakakis regarding the ordinary meaning of this term to a person of ordinary skill in the art in the context of the intrinsic record, including the opinion that Google's proposed construction is consistent with that meaning. ● Sony Play Queue Help Guide, available at https://helpguide.sony.net/ha/ar/v1/en/contents/TP0000165650.html ● Sonos Controller for Mac or PC Product Guide, available at https://usermanual.wiki/m/

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
		<ul style="list-style-type: none"> 2019 Interview Agenda; • ‘033 Patent Prosecution History, Nov. 1, 2019 Office Action Response; • ‘033 Patent Prosecution History, March 9, 2020 Applicant Initiated Interview Summary; • U.S. Patent App. No. 16/550,148, Dec. 26, 2019 Office Action; • U.S. Patent App. No. 16/550,148, Mar. 26, 2020 Office Action Response; • U.S. Patent App. No. 16/550,148, Mar. 31, 2020 Applicant Initiated Interview Summary; • U.S. Patent App. No. 16/550,148, May 21, 2020 Notice of Allowance; • Intrinsic Evidence from one or more cited patents: <ul style="list-style-type: none"> ○ SONOS-SVG2-00043061 at e.g. 4:25-29; ○ SONOS-SVG2-00042964 at e.g. ¶¶ 9, 14-15, 27, 37, 52-54, 56-57, 61-64, 66-67, FIG. 4E, FIG. 7; ○ SONOS-SVG2-00042982 at e.g. ¶¶ 8, 40, 45, 47-48, 62, 64; ○ SONOS-SVG2-00043004 at e.g. ¶¶ 5, 9, 30, 32, 35, 40-41, 44, 48, 59, FIG. 1, FIGs. 2a-3b; 	<p>68573d543093792f80f0cf24ee19dd2053848aeda926943fd52a03063991ea56.pdf</p> <ul style="list-style-type: none"> • Windows Vista: The Missing Manual, available at http://ommolketab.ir/aaf-lib/rvqoaxtga1fs5s4zq306nr6bn81n8f.pdf • Merriam Webster Online Dictionary, available at https://www.merriam-webster.com/dictionary/%22resource%20locator%22 • Sonos 2014 provisional application 62/007,906 • U.S. Patent No. 9,674,587 e.g. at 2:52-67, 14:4-16:47, Fig. 4 • Microsoft Computer Dictionary, 5th Edition (2002) <p>queue¹ <i>n.</i> A multi-element data structure from which (by strict definition) elements can be removed only in the same order in which they were inserted; that is, it follows a first in, first out (FIFO) constraint. There are also several types of queues in which removal is based on factors other than order of insertion—for example, some priority value assigned to each element. <i>See also deque, element (definition 1). Compare stack.</i></p> <ul style="list-style-type: none"> • Webster’s New World Telecom Dictionary (2008)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
		<ul style="list-style-type: none"> ● Expert testimony of Dr. Schmidt; ● Extrinsic Evidence from one or more of the following: <ul style="list-style-type: none"> ○ GOOG-SONOSWDTX-00006865; ○ GOOG-SONOSWDTX-00006878; ○ SONOS-SVG2-00042957; ○ SONOS-SVG2-00042960; ○ SONOS-SVG2-00042962; ○ GOOG-SONOSWDTX-00042015; ○ Microsoft Media Center QA, available at https://answers.microsoft.com/en-us/windows/forum/all/how-do-i-queue-videos-in-media-center/6297acf3-3c02-475a-a7a6-35cf8fd8be48 ○ Winamp for Android: Play Queue Tutorial, https://web.archive.org/web/20110322181645/http://blog.winamp.com/2011/01/11/winamp-for-android-play-queue-tutorial/ ● Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: <ul style="list-style-type: none"> ○ Sonos's Opening Claim Construction Brief, including all 	<p>queue A list, string, or stack of things constructed so that items are added to one end and removed from the other. Generally speaking, items are added to one end, known as the tail, and removed from the other end, known as the head. In the absence of some priority mechanism for purposes of queuing and maintaining quality-of-service (QoS) differentiation, items are relieved from the head in the order they entered the tail. This approach is known as <i>first-in-first-out</i> (FIFO). Incoming calls are often queued by telephone exchanges. Call centers employ automatic call distributors (ACDs) that queue incoming calls, serving them to agents as they become available. Fax servers can queue documents for transmission during non-prime time when international calling costs are lowest. PBX systems commonly have the capability to queue calls for expensive long distance circuits. Switches and routers queue packets in buffers until they are available to process them or until bandwidth is available to forward them. Systems maintain queues for different types of calls or packets. Priority mechanisms can cause a call or packet to jump up in the queue or even advance to the head of the queue in order that it can be served immediately.</p> <hr/> <p>queue</p> <p>are available to process them or until bandwidth is available to forward them. Systems maintain queues for different types of calls or packets. Priority mechanisms can cause a call or packet to jump up in the queue or even advance to the head of the queue in order that it can be served immediately.</p> <ul style="list-style-type: none"> ● The New Penguin Dictionary of Computing by Pountain (2001) <p>queue A data structure with the property that the first element that can be removed is the first one that was put in. Hence a queue enables a number of items to wait for the occurrence of an event, or access to a rationed resource, while maintaining the strict order in which they arrived. See also FIFO, STACK.</p> <ul style="list-style-type: none"> ● Microsoft Encyclopedia of Networking (2000)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
		<p>Exhibits;</p> <ul style="list-style-type: none"> ○ Sonos's Reply Claim Construction Brief, including all Exhibits; ○ Google's Responsive Claim Construction Brief, including all Exhibits; ○ Google's Sur-Reply Claim Construction Brief, including all Exhibits 	<p>queue</p> <p>A collection of items waiting to be processed in a specific order. Examples of queue computer and networking technology are numerous and include the following:</p> <ul style="list-style-type: none"> ● A print queue, which consists of print jobs waiting to be sent to a print device ● A messaging queue (on a mail server such as Microsoft Exchange Server), which consists of messages waiting to be sent ● A backlog of packets waiting to be forwarded over a specific interface by a router ● Information, function calls, or transactions sent by one application and forwarded to another by Microsoft Message Queue (MSMQ) Server in Microsoft Windows NT or Message Queuing in Windows 2000 ● A collection of fax messages waiting to be processed and sent by a fax server ● A series of system messages, such as key presses and mouse clicks, sent by applications to an operating system for processing <p>● McGraw-Hill Dictionary of Scientific and Technical Terms, 6th Ed. (2002)</p> <p>queue [COMPUT SCI] 1. A list of items waiting for attention in a computer system, generally ordered according to some criteria. 2. A linear list whose elements are inserted and deleted in a first-in-first-out order. [IND ENG] See waiting line. {kyü}</p>
“resource locators”	‘615 Pat. (all claims)	<p><i>Plain and ordinary meaning; no construction necessary</i></p> <ul style="list-style-type: none"> ● '615 Patent at e.g. 2:51-3:13, 11:62-12:3, 12:38-63, 13:31-40, 14:29-61, 15:12-16, 15:41-46, 15:51-67, 16:9-19, claims 1, 8, 13, 20, 25, FIGs. 7, 9, 11; ● '615 Prosecution History, April 5, 2017 Office Action Response; ● '615 Prosecution History, May 9, 2017 Office Action; 	<p>“address of a resource on the Internet”</p> <p><u>INTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● '615 patent, 11:65-12:3, 12:53-61, 14:44-53, 14:62-15:17, 15:37-46, Claims 16, 20 <p><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● Google may introduce expert testimony from Dr.

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		<ul style="list-style-type: none"> • '615 Prosecution History, August 28, 2017 Office Action Response; • Expert testimony of Dr. Schmidt; • Extrinsic Evidence from one or more of the following: <ul style="list-style-type: none"> ○ SONOS-SVG2-00043078 at 3:14-38; ○ SONOS-SVG2-00043035 at 5:16-27; ○ SONOS-SVG2-00043131 at ¶ 27; ○ SONOS-SVG2-00043153 at 3:32-37, 3:65-67 	<p>Kyriakakis regarding the ordinary meaning of this term to a person of ordinary skill in the art in the context of the intrinsic record, including the opinion that Google's proposed construction is consistent with that meaning.</p> <ul style="list-style-type: none"> • Microsoft Computer Dictionary, Fifth Edition (2002) <p>URL <i>n.</i> Acronym for Uniform Resource Locator. An address for a resource on the Internet. URLs are used by Web browsers to locate Internet resources. A URL specifies the protocol to be used in accessing the resource (such as http: for a World Wide Web page or ftp: for an FTP site), the name of the server on which the resource resides (such as //www.whitehouse.gov), and, optionally, the path to a resource (such as an HTML document or a file on that server). <i>See also</i> FTP¹ (definition 1), HTML, HTTP, path (definition 1), server (definition 2), virtual path (definition 1), Web browser.</p> • A Dictionary of Computing, Sixth Edition (2008) <p>URL (<i>or url</i>) <i>Abbrev.</i> for universal (or uniform) resource locator. The address system used on the Internet, for example, to specify the location of documents in the *World Wide Web. For instance,</p> <p style="text-align: right;">533</p> <p style="text-align: right;">http://www.eit.com/web/www.guide/</p> <p style="text-align: right;">is the URL of a starting point for new Web users. <i>See also</i> URI.</p> • Wiley Electrical and Electronics Engineering Dictionary, IEEE Press, 2004.

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			<p>over ---</p> <p>URL Abbreviation of Uniform Resource Locator, or Universal Resource Locator. An Internet address which directs a browser to a specific location where an Internet resource, such as a Web page or document, is located. For example in the following URL, http://www.yipeeee.com/whoo.html, http://www.yipeeee.com is the protocol, the www.yipeeee.com portion is the domain name, and whoo.html is a document named whoo created utilizing HTML.</p> <p><small>Uniform Resource Locator</small></p>
“local area network”*	‘615 Pat. (all claims)	<p><i>Plain and ordinary meaning, which is “data network spanning a limited geographical area, such as a home or office”</i></p> <ul style="list-style-type: none"> ● ‘615 Patent at e.g. 5:12-28, 5:38-41, 10:64-66, 12:31-38, 12:44-49, 12:53-56, 13:1-22, 13:36-40, 13:60-14:28, 14:42-43 15:18-32, 15:38-44, 16:1-8, 16:13-15, 17:12-20 FIG. 1; ● Extrinsic Evidence from one or more of the following: <ul style="list-style-type: none"> ○ SONOS-SVG2-00018237 at 39-40; ○ SONOS-SVG2-00018301 at 12; ○ SONOS-SVG2-00018402 at 6; ○ SONOS-SVG2-00018417 at 20, 22; ○ SONOS-SVG2-00018670 at 72; ○ SONOS-SVG2-00018673 at 76; ○ SONOS-SVG2-00018752 at 57-59; ○ SONOS-SVG2-00018823 at 23; ○ SONOS-SVG2-00018832 at 36; ○ SONOS-SVG2-00018838 at 38; ○ SONOS-SVG2-00043094; ○ SONOS-SVG2-00043161; 	<p><i>The Western District of Texas Court already construed this term to have its plain and ordinary meaning, and declined to adopt Sonos’s attempt to further construe the term.</i></p> <p><u>INTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● <u>‘615 at 7:37-50; 10:56-11:5; 16:1-8; 2:51-3:13; 12:19-43; 13:41-59; 15:38-46; 17:12-20</u> <p><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● Dictionary of Multimedia Terms and Acronyms, 4th Edition (2005)

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		<ul style="list-style-type: none"> ● Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: <ul style="list-style-type: none"> ○ Sonos's Opening Claim Construction Brief, including all Exhibits; ○ Sonos's Reply Claim Construction Brief, including all Exhibits; ○ Google's Responsive Claim Construction Brief, including all Exhibits; ○ Google's Sur-Reply Claim Construction Brief, including all Exhibits; ○ Kryiakakis Dep. Tr. dated June 11, 2021, including all Exhibits; ● Expert testimony of Dr. Schmidt and/or Dr. Almeroth; ● <i>See also</i> citations for the "data network" term. 	<p>local area network (LAN) (n.) Any physical network technology that operates at high speeds over short distances, such as several thousand yards. Technologies that play roles in a LAN include Ethernet, token ring, Asynchronous Transfer Mode (ATM), Fiber Distributed Data Interface (FDDI) II, 10BASE-T, and Systems Network Architecture (SNA). The system of cables and interfaces controlled by a communications protocol that connects microcomputers for sharing resources and peripherals is all part of the LAN. Connection is also possible with an infrared or wireless link. Compare <i>wide area network</i>.</p> <ul style="list-style-type: none"> ● Webster's New World Computer Dictionary, 10th Edition (2003)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>LAN Acronym for local area network. A computer network that uses cables or radio signals to link two or more computers within a geographically limited area (generally one building or a group of buildings). The linked computers are called workstations. LANs are differentiated by their architecture (peer-to-peer or client/server), topology (bus, hierarchical, multipoint, point-to-point, ring, or star), protocols (standards for transferring data among the linked workstations), and media (for instance, coaxial, twisted-pair, and fiber optic). Peer-to-peer LANs are simple to implement using the built-in networking capabilities of computers running Microsoft Windows or Mac OS; such networks enable the linked computers to share expensive peripherals such as laser printers; client/server networks use a LAN server to make centralized resources (such as databases and applications) available to workstation users. Network protocols operate at differing layers; for example, Ethernet is a lower-layer protocol that defines the basic mechanisms by which data enters the network and travels to its destination; Ethernets can work with a variety of higher-level protocols, including AppleTalk, Common Internet File System (CIFS), and TCP/IP. See <i>AppleTalk</i>, <i>baseband</i>, <i>broadband</i>, <i>bus network</i>, <i>client/server</i>, <i>Ethernet</i>, <i>peer-to-peer network</i>, <i>ring network</i>, <i>star network</i>, <i>wireless LAN</i>.</p> <ul style="list-style-type: none"> • Webster's New World Dictionary of Computer Terms, Eighth Edition (2000)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>LAN Acronym for local area network. A computer network that physically links two or more computers within a geographically limited area (generally one building or a group of buildings). The linked computers are called workstations. Peer-to-peer LANs enable the linked computers to share expensive peripherals such as laser printers; client/server networks use a LAN server to make resources (such as databases and applications) available to workstation users. Local area networks have a characteristic topology (such as bus, ring, or star) and implement one or more networking protocols (such as AppleTalk, Ethernet, or TCP/IP). See <i>AppleTalk</i>, <i>baseband</i>, <i>broadband</i>, <i>bus network</i>, <i>client/server</i>, <i>Ethernet</i>, <i>multiuser system</i>, <i>NetWare</i>, <i>network operating system (NOS)</i>, <i>peer-to-peer network</i>, <i>ring network</i>, and <i>star network</i>.</p> <ul style="list-style-type: none"> • Comprehensive Dictionary of Electrical Engineering, Second Edition (2005) <p>local area network a network of computers and connection devices (such as switches and routers) that are located on a single site. The connections are direct cables (such as UTP or optical fiber) rather than telecommunication lines. The computer network in a university campus is typically a local area network.</p> <ul style="list-style-type: none"> • Newton's Telecom Dictionary, Nineteenth Edition (2003)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>Local Area Network LAN. A short distance data communications network (typically within a building or campus) used to link computers and peripheral devices (such as printers, CD-ROMs, modems) under some form of standard control. Older data communications networks used dumb terminals (devices with no computing power) to talk to distant computers. But the economics of computing changed with the invention of the personal computer which had "intelligence" and which was cheap. LANs were invented as an afterthought — after PCs — and were originally designed to let cheap PCs share peripherals — like laser printers — which were too expensive to dedicate to individual PCs. And as time went on, what LANs were used for got broader and broader. Today, LANs have four main advantages: 1. Anyone on the LAN can use any of the peripheral devices connected to the LAN. 2. Anyone on the LAN can access databases and programs running on client servers (super powerful PCs) attached to the LAN; and 3. Anyone on the LAN can send messages to and work jointly with others on the LAN. 4. While a LAN does not use common carrier circuits, it may have gateways and/or bridges to public telecommunications networks. See LAN Manager, Token Ring and Ethernet.</p> <p>● The Dictionary of Multimedia, Fourth Edition (2005)</p> <p>local area network (LAN) (n.) Any physical network technology that operates at high speeds over short distances, such as several thousand yards. Technologies that play roles in a LAN include Ethernet, token ring, Asynchronous Transfer Mode (ATM), Fiber Distributed Data Interface (FDDI) II, 10BASE-T, and Systems Network Architecture (SNA). The system of cables and interfaces controlled by a communications protocol that connects microcomputers for sharing resources and peripherals is all part of the LAN. Connection is also possible with an infrared or wireless link. Compare <i>wide area network</i>.</p>

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			<ul style="list-style-type: none"> IEEE Standard for Local and Metropolitan Area Networks, Std. 802-2001 (2002) <p>1.2 Key concepts</p> <p>The LANs described herein are distinguished from other types of data networks in that they are optimized for a moderate-sized geographic area, such as a single office building, a warehouse, or a campus. An IEEE 802[®] LAN is a peer-to-peer communication network that enables stations to communicate directly on a point-to-point, or point-to-multipoint, basis without requiring them to communicate with any intermediate switching nodes. LAN communication takes place at moderate-to-high data rates, and with short transit delays, on the order of a few milliseconds or less.</p> <ul style="list-style-type: none"> Microsoft Computer Dictionary, Fifth Edition (2002) <p>LAN <i>n.</i> Acronym for local area network. A group of computers and other devices dispersed over a relatively limited area and connected by a communications link that enables any device to interact with any other on the network. LANs commonly include PCs and shared resources such as laser printers and large hard disks. The devices on a LAN are known as nodes, and the nodes are connected by cables through which messages are transmitted. <i>See also</i> baseband network, broadband network, bus network, client/server architecture, collision detection, communications protocol, contention, CSMA/CD, network, peer-to-peer architecture, ring network, star network. <i>Compare</i> WAN.</p> <ul style="list-style-type: none"> Computer & Internet Dictionary, Third Edition (1999) <p>local-area network A computer network that spans a relatively small area. Most LANs are confined to a single building or group of buildings. However, one LAN can be connected to other LANs over any distance via telephone lines and radio waves. A system of LANs connected in this way is called a wide-area network (WAN). Most LANs connect workstations and personal computers. Each <i>node</i></p>

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			<p>(individual computer) in a LAN has its own CPU with which it executes programs, but it is also able to access data and devices anywhere on the LAN. This means that many users can share expensive devices, such as laser printers, as well as data. Users can also use the LAN to communicate with one another, by sending e-mail or engaging in chat sessions. There are many different types of LANs, <i>Ethernets</i> being the most common for PCs. Most Apple Macintosh networks are based on Apple's AppleTalk network system, which is built into Macintosh computers. The following characteristics differentiate one LAN from another:</p> <p>topology: The geometric arrangement of devices on the network. For example, devices can be arranged in a ring or in a straight line.</p> <p>protocols: The rules and encoding specifications for sending data. The protocols also determine whether the network uses a peer-to-peer or client/server architecture.</p> <p>media: Devices can be connected by twisted-pair wire, coaxial cables, or fiber optic cables. Some networks do without connecting media altogether, communicating instead via radio waves.</p> <p>LANs are capable of transmitting data at very fast rates, much faster than data can be transmitted over a telephone line; but the distances are limited, and there is also a limit on the number of computers that can be attached to a single LAN.</p> <p>⇒ See also APPLETALK; ARCNET; BRIDGE; CLIENT/SERVER ARCHITECTURE; DCC; E-MAIL; ETHERNET; IEEE 802 STANDARDS; INTERNETWORKING; MAN; NETWARE; NETWORK; NETWORK INTERFACE CARD; NETWORK OPERATING SYSTEM; NODE; NOVELL; PEER-TO-PEER ARCHITECTURE; PERSONAL COMPUTER; PROTOCOL; SNMP; SWITCHING HUB; TOKEN BUS NETWORK; TOKEN-RING NETWORK; TOPOLOGY; TOPS; VLAN; WIDE-AREA NETWORK.</p> <ul style="list-style-type: none"> • Deploying the World's Largest Campus 802.11b Network, University of British Columbia (November 11, 2003; available at http://www.ieee802.org/802_tutorials/03-6November/www.wireless.ubc.ca-IEEE-Nov2003.ppt)

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			 <p>THE UNIVERSITY OF BRITISH COLUMBIA</p> <p>Snapshot of wireless.ubc.ca</p> <ul style="list-style-type: none"> • Campus wide • Close to 5000 users • 150 buildings • 1300 Access Points (APs) <ul style="list-style-type: none"> • <i>See also</i> “data network”
“data network”*	‘033 Pat. ‘885 Pat. (all claims)	<p><i>Plain and ordinary meaning, which is “a medium that interconnects devices, enabling them to send digital data packets to and receive digital data packets from each other”</i></p> <ul style="list-style-type: none"> • ‘885 Patent at e.g. 3:22-25, 4:49-51, 4:63-5:9, 5:13-15, 5:26-53, 5:40-53, 5:65-6:4, 6:18-21, 6:32-48, 7:46-51, 7:58-65, 10:60-63, 11:6-11, FIG. 1; • ‘615 Patent at e.g. 3:56-64, 4:13-25, 4:40-52, 4:64-65, 6:61-7:1, 7:5-8, 7:12-18, 7:37-50, 7:53-66, 8:12-16, 10:66-11:2, 11:6-9, 11:45-51, 11:65-12:3, 12:34-63, 16:9-17, 16:18-31, 17:12-20 (and corresponding citations in the ‘033 Patent); • Extrinsic Evidence from one or more of the following: <ul style="list-style-type: none"> ○ SONOS-SVG2-00018301 at 5, 12; ○ SONOS-SVG2-00018417 at 20-22; ○ SONOS-SVG2-00018673 at 76; ○ SONOS-SVG2-00018707 at 10-11; ○ SONOS-SVG2-00018715 at 18-23; 	<p><i>The Western District of Texas Court already construed this term to have its plain and ordinary meaning, and declined Sonos’s attempt to further construe the term.</i></p> <p><u>INTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> • ‘033 at 1:22-24; 4:6-20; 5:20-65; 7:4-21; 7:44-57. <p><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> • McGraw-Hill Dictionary of Scientific and Technical Terms, Sixth Edition (2003) <p>analog data [COMPUT SCI] Data represented in a continuous form, as contrasted with digital data having discrete values. ('an-ələg 'dād-ə)</p> <p>data [COMPUT SCI] 1. General term for numbers, letters, symbols, and analog quantities that serve as input for computer processing. 2. Any representations of characters or analog quantities to which meaning, if not information, may be assigned. [SCI TECH] Numerical or qualitative values derived from scientific experiments. ('dād-ə, 'dād-ə, or 'dād-ə)</p>

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
		<ul style="list-style-type: none"> <li data-bbox="741 267 1241 393">○ SONOS-SVG2-00018752 at 59, 67; ○ SONOS-SVG2-00018832 at 36; ○ SONOS-SVG2-00043094; ○ SONOS-SVG2-00043161; <li data-bbox="650 401 1241 1034">● Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: <ul style="list-style-type: none"> <li data-bbox="741 470 1199 567">○ Sonos's Opening Claim Construction Brief, including all Exhibits; <li data-bbox="741 576 1199 657">○ Sonos's Reply Claim Construction Brief, including all Exhibits; <li data-bbox="741 665 1199 747">○ Google's Responsive Claim Construction Brief, including all Exhibits; <li data-bbox="741 755 1199 853">○ Google's Sur-Reply Claim Construction Brief, including all Exhibits; <li data-bbox="741 861 1199 910">○ Kryiakakis Dep. Tr. dated June 11, 2021, including all Exhibits; <li data-bbox="650 918 1241 1034">● Expert testimony of Dr. Schmidt and/or Dr. Almeroth; <ul style="list-style-type: none"> <li data-bbox="713 975 1199 1024">● <i>See also</i> citations for the “local area network” term. 	<p>digital data [COMPUT SCI] Data that are electromagnetically stored in the form of discrete digits. ('dij-əd-əl 'dad-ə)</p> <p>packet [BIOL] A cluster of organisms in the form of a cube resulting from cell division in three planes. [COMMUN] A short section of data of fixed length that is transmitted as a unit. [PHYS] <i>See</i> wave packet. ('pak-ət)</p> <ul style="list-style-type: none"> <li data-bbox="1311 474 1981 540">● Dictionary of Computer and Internet Terms, Ninth Edition (2006) <li data-bbox="1311 564 1981 662">data information. The word was originally the plural of <i>datum</i>, which means “a single fact,” but it is now often used as a collective singular. Data processing is the act of using data for making calculations or decisions. <i>Usage note:</i> This usage came and went. <li data-bbox="1311 687 1981 719">● Hargrave's Communications Dictionary (2001) <li data-bbox="1311 727 1981 858">data A representation of a collection of facts, concepts, instructions, or information to which meaning has been assigned. The representation may be analog, digital, or any symbolic form suitable for storage, communication, interpretation, or processing by human or automatic means. <li data-bbox="1311 866 1981 964">“Data” is the plural of the Latin <i>datum</i>, meaning one item of information. To be correct, a single item should be called a datum and more than one should be called data, i.e., “one datum is . . .” and “two data are . . .”

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			<p>network (1) A collection of generally passive, electronic components (e.g., resistors, capacitors, and inductors) interconnected in some way that performs a specific function; usually limited in scope (e.g., simulation of a transmission line or pulse shaping). (2) A collection of two or more autonomous information sources and sinks interconnected by one or more communication links. The components of a network include:</p> <ul style="list-style-type: none"> • Nodes (computers, printers, network interface cards[—NICs], etc.). • Connection elements (cabling, wiring centers, optical fibers, switching systems, etc.). <p>The interconnecting link(s) may either be temporary (as with the dial-up telephone network) or permanent, such as with cables. The data passing through the interconnecting link is examined for errors, in contrast with a <i>multiprocessor system</i> wherein the data is accepted "at face value."</p> <ul style="list-style-type: none"> • Topology (physical and logical): <ul style="list-style-type: none"> • Physical topology describes how nodes are wired or interconnected. (Various topologies include the bus, ring, and star networks.) • Logical topology describes how network packets are treated. For example, a logical ring may be created on a physical star network by addressing a token packet sequentially to each node. • Auxiliary components (peripheral devices, safety devices, and tools). • Network operating system (NOS) and workstation software. <p>Networks are often classified according to their geographic extent or according to the transmission protocol used. Some examples of voice and/or data networks include the public switched telephone network (PSTN), integrated services digital network (ISDN), Ethernet (local area network), and the Internet (a world wide computer network). See also <i>network classifications</i>.</p> <ul style="list-style-type: none"> • Comprehensive Dictionary of Electrical Engineering, Second Edition (2005)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>analog data data represented in a continuous form with respect to continuous time, as contrasted with digital data represented in a discrete (discontinuous) form in a sequence of time instant.</p> <p>analog signal a signal represented in a continuous form with respect to continuous time, as contrasted with digital signal represented in a discrete (discontinuous) form in a sequence of time instant. <i>See also</i> analog data.</p> <p>local area network a network of computers and connection devices (such as switches and routers) that are located on a single site. The connections are direct cables (such as UTP or optical fiber) rather than telecommunication lines. The computer network in a university campus is typically a local area network.</p> <ul style="list-style-type: none"> Newton's Telecom Dictionary, Nineteenth Edition (2003) <p>Analog Signal A signal in the form of a continuous wave varying in step with the actual transmitted information; attempts to transmit an exact replica of the inputted signal down a communications channel. <i>See Analog and all the various definitions starting with Analog.</i></p> <p>Data This is AT&T Bell Labs' definition: "A representation of facts, concepts or instructions in a formalized manner, suitable for communication, interpretation or processing." Typically anything other than voice.</p>

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>Digital Signal A discontinuous signal. One whose state consists of discrete elements, representing very specific information. When viewed on an oscilloscope, a digital signal is "squared." This compares with an analog signal which typically looks more like a sine wave, i.e. curvy. Usually amplitude is represented at discrete time intervals with a digital value.</p> <ul style="list-style-type: none"> • Modern Dictionary of Electronics, Seventh Edition (1999) <p>analog data— 1. A physical representation of information such that the representation bears an exact relationship to the original information. The electrical signals on a telephone channel are an analog data representation of the original voice. 2. Data represented in a continuous form, as contrasted with digital data represented in a discrete (discontinuous) form. Analog data is usually represented by physical variables, such as voltage, resistance, rotation, etc.</p> <p>data— 1. A general term used to denote any or all numbers, letters, symbols, or facts that refer to or describe an object, idea, condition, situation, or other factors. It connotes basic elements of information that can be processed or produced by a computer. Sometimes <i>data</i> is considered to be expressible only in numerical form, but <i>information</i> is not so limited. 2. A general term for any type of information. 3. Inputs in the form of a character string that may have significance beyond their numerical meaning. 4. Any representations, such as characters or analog quantities, to which meaning might be assigned.</p> <p>digital data— 1. Data represented in discrete, discontinuous form, as contrasted with analog data represented in continuous form. Digital data is usually represented by means of coded characters (e.g., numbers, signs, symbols, etc.). 2. Any data that is expressed in digits. The term usually implies the use of binary digits.</p> <ul style="list-style-type: none"> • Webster's New World Telecom Dictionary (2008)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>packet 1. In the generic sense, referring to the manner in which data are organized into discrete units for transmission and switching through a data network. The data unit can be known as a block, frame, cell, or packet, depending on the protocol specifics. The packet comprises a header, payload, and sometimes a trailer, again depending on protocol specifics. The packet can be a user packet containing user data, or a signaling and control packet for various network monitoring, alerting and alarming, maintenance, and other administrative purposes. The payload can be a complete message, a fragment or segment of a message, or an aggregation of bits or bytes that form a short portion of a long data stream associated with a voice or video call. See also <i>bit</i>, <i>block</i>, <i>byte</i>, <i>cell</i>, <i>data stream</i>, <i>fragment</i>, <i>frame</i>, <i>header</i>, <i>message</i>, <i>payload</i>, <i>protocol</i>, <i>segment</i>, and <i>trailer</i>. 2. In a technology-specific sense, a packet is a data unit in an internetwork, such as the Internet or other packet-switched network in which routers interconnect networks and subnetworks to exchange traffic between nodes. In terms of the OSI Reference Model, a packet is defined in Layer 3, the Network Layer. Blocks, cells, and frames are defined in Layer 2, the Data Link Layer, and have local significance, only. See also <i>block</i>, <i>cell</i>, <i>datagram</i>, <i>Data Link Layer</i>, <i>frame</i>, <i>Internet</i>, <i>Network Layer</i>, <i>OSI Reference Model</i>, <i>packet switch</i>, and <i>router</i>.</p> <ul style="list-style-type: none"> • Webster's New World Computer Dictionary, 10th Edition • (2003) <p>packet In networking, a unit of data of a fixed size—not exceeding the network's maximum transmission unit (MTU) size—that has been prepared for transmission over a packet-switching network. Each packet contains a header that indicates its origin and its destination. Synonymous with <i>datagram</i>. See <i>packet-switching network</i>.</p> <ul style="list-style-type: none"> • Packet Broadband Network Handbook, McGraw-Hill (2004), (excerpts)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>8.1 Introduction</p> <p>A local area network is a high-speed data network that covers a relatively small geographic area. It typically connects workstations, personal computers, printers, servers, and other end-user devices, which are collectively also known as <i>data terminal equipment</i>. The common applications of LAN include shared access to devices and applications, file exchange between connected users, and communication between users via electronic mail and others. LANs are also private data networks, because they belong to an organization and are used to carry data traffic as opposed to voice traffic.</p> <p>This section provides a brief introduction to LAN history, standards, protocol stacks, topologies, and devices.</p> <p>8.1.1 LAN History and Standards</p> <p>LAN is a type of broadband packet access network that carries the packet data traffic of an organization. LAN interconnects the end users of an organization to an outside public data network such as the Internet.</p> <p>The basis of LAN technologies and standards was defined in the late 1970s and early 1980s. LAN technologies really emerged with the Internet itself, and the first widely deployed LAN technology, Ethernet, is almost as old as the Internet itself. The overwhelming majority of the deployed LANs are Ethernet.</p> <p>IEEE 802, a branch of the International Institute of Electrical and Electronics Engineers (IEEE), is responsible for most of the LAN standards. These standards have also been adopted by other standards organization such as ANSI and ISO. The major LAN standards are listed in Table 8-1.</p> <ul style="list-style-type: none"> ● Okhravi et al., Data Diodes in Support of Trustworthy Cyber Infrastructure ● Vorontsove et al., Development of unidirectional data diode system in the secure environment, Workshop on computer science and information technologies 19th CSIT 2017, Germany, Baden- Baden, 2017 ● U.S. Patent No. 6,081,907 to Witty et al. (Data Delivery System and Method for Delivering Data And Redundant Information Over a Unidirectional Network) ● Declaration of Kyriakakis dated June 1, 2021 (Case No. 6:20-cv-00881-ADA, Dkt 64-12)

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			<ul style="list-style-type: none"> • See also “local area network”
“network interface” *	<p>‘885 Pat. (asserted claims 1, 3, 7)</p> <p>‘615 Pat. (asserted claims 13-21)</p>	<p><i>Plain and ordinary meaning, which is “a physical component of a device that provides an interconnection with a data network”</i></p> <ul style="list-style-type: none"> • ‘885 Patent at 5:26-36, 5:40-48, FIG. 1; • ‘615 Patent at e.g. 7:37-44, FIG. 4; • Extrinsic Evidence from one or more of the following: <ul style="list-style-type: none"> ○ SONOS-SVG2-00018752; ○ SONOS-SVG2-00042953; ○ SONOS-SVG2-00042956; ○ SONOS-SVG2-00042963; • Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: <ul style="list-style-type: none"> ○ Sonos’s Opening Claim Construction Brief, including all Exhibits; ○ Sonos’s Reply Claim Construction Brief, including all Exhibits; ○ Google’s Responsive Claim Construction Brief, including all Exhibits; ○ Google’s Sur-Reply Claim Construction Brief, including all Exhibits; • Prior documents from <i>Sonos, Inc. v. D&M Holdings Inc. et al</i>, 14-cv-1330, including Court’s <i>Markman</i> opinion (Dkt. 219) regarding certain claim terms (SONOS-SVG2-00018339) and Court’s Daubert 	<p><i>The Western District of Texas Court already construed this term to have its plain and ordinary meaning, and declined Sonos’s attempt to further construe the term.</i></p> <p><u>INTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> • ‘615 at 7:23-8:39; 9:49-59 <p><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> • Dictionary of Computing, 6th edition (2010) <p>network /netw<small>ɜ</small>rk/ <i>noun</i> a system made of a number of points or circuits that are interconnected ■ <i>verb</i> to link points together in a network ○ <i>They run a system of networked micros.</i></p> <p>‘Asante Technologies has expanded its range of Ethernet-to-LocalTalk converters with the release of AsantePrint 8, which connects up to eight LocalTalk printers, or other LocalTalk devices, to a high-speed Ethernet network.’ [Computing]</p> <ul style="list-style-type: none"> • The Computer Glossary, The Complete Illustrated Dictionary, 9th Edition (2001) <p>network</p> <p>(1) An arrangement of objects that are interconnected. See <i>LAN</i>. (2) In communications, the transmission channels interconnecting all client and server stations as well as all supporting hardware and software.</p> <ul style="list-style-type: none"> • Dictionary of Multimedia Terms and Acronyms, 4th Edition (2005)

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		<ul style="list-style-type: none"> opinion (Dkt. 427) (SONOS-SVG2-00018370); and • Prior documents from <i>Certain Audio Players and Controllers, Components thereof, and Products Containing Same</i>, Inv. No. 337-TA-119, including Order 20: Construing the Terms of the Asserted Claims of the Patents at Issue (Sept. 25, 2020) (SONOS-SVG2-00018184) 	<p>network (n.) A group of computers, peripherals, or other equipment connected to one another for the purpose of passing information and sharing resources. Networks can be local or remote. The topology of a network is the geographic arrangement of links and nodes, which may be arranged in the shape of a star, a tree, or a ring.</p> <ul style="list-style-type: none"> • Dictionary of Computer and Internet Words (2001) <p>interface 1. The devices, graphics, commands, and prompts that enable a computer to communicate with any other entity, such as a printer or the user. For example, the ports and connector are the interface between a computer and a printer. The interface that lets a user communicate with the computer is called a user interface. See also user interface. 2. See port.</p> <ul style="list-style-type: none"> • Dictionary of Computer and Internet Terms, 8th Ed. (2003) <p>interface the connection between two systems through which information is exchanged. For example, in computer hardware, an interface is an electrical connection of the proper type. In software, it is a standard format for exchanging data. The USER INTERFACE of a piece of software is the way it interacts with the human being who is using it. See also DATA COMMUNICATION; USER INTERFACE.</p> <ul style="list-style-type: none"> • Computer and Internet Dictionary, 3rd Ed. (1999)

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			<p>interface <i>n</i> 1. Something that connects two separate entities. For example, a <i>user interface</i> is the part of a program that connects the computer with a human operator (user). There are also interfaces to connect programs, to connect devices, and to connect programs to devices. An interface can be a program or a device, such as an electrical connector. —v 2. To communicate. For example, two devices that can transmit data between each other are said to <i>interface with each other</i>. This use of the term is scorned by language purists because <i>interface</i> has historically been used as a noun.</p> <ul style="list-style-type: none"> • Dictionary of Computer Science, Engineering, and Technology by Laplante (2001) <p>interface (1) the boundary between a system and its environment, across which interaction occurs by the passing of information.</p> <p>(2) the externally visible features or characteristics (of an object, use case, subroutine, etc.). This term is used in the languages supporting the distinction between interfaces and classes such as C++.</p> <ul style="list-style-type: none"> • The New Penguin Dictionary of Computing by Pountain (2001)

Claim Term	Patent; Claim	Sonos Proposed Construction and Supporting Evidence	Google Proposed Construction and Supporting Evidence ²
			<p>Interface A common boundary where two different domains join: hence that term has several specialized meanings in computing.</p> <ul style="list-style-type: none"> 1 An electrical connection between two devices, as in SERIAL interface or SCSI interface. 2 Short for USER INTERFACE, that part of a computer program that manages interactions with the user. 3 In OBJECT-ORIENTED PROGRAMMING, a set of METHODS that a class of objects makes visible for communicating with other objects. An interface contains only the names and PARAMETER lists of the methods, not their implementations, so objects of different classes may display the same interface while providing a different implementation. For example many classes may have a method named Print, but the precise details of how to print objects of each class will be different. Separating interface from implementation in this way enables programmers to write economical POLYMORPHIC code that can handle many different classes of object. <ul style="list-style-type: none"> • Data Telecommunications Dictionary by Peterson (1999)

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			<p>interface A hardware connection, or logical connection or translation point. Interfaces are an intrinsic part of interconnected computers, peripherals, and networks. Almost every aspect of data and electrical connections in the telecommunications industry uses a different format or version of a format, and the interface is the point at which all these different hardware and software junctions come together. A cable, peripheral card, card slot, or chip socket are all types of interfaces, as are the images on the monitor and the sounds from a speaker.</p> <ul style="list-style-type: none"> • Understanding Networking Technology, 2nd Ed. (1999) <p>Interface https://www.merriam-webster.com/thesaurus/interface The boundary between two things, typically two programs, two pieces of hardware, a computer and its user, and a project manager and the customer.</p>
“zone scene”*	‘966 Pat. ‘885 Pat. (all claims)	<p><i>“a previously-saved grouping of zone players that are to be configured for synchronous playback of media when the zone scene is invoked”</i></p> <ul style="list-style-type: none"> • ‘885 Patent at e.g. 2:19-20, 2:36-42, 3:26-31, 5:16-17, 5:65-6:4, 6:24-25, 7:35-38, 7:60-65, 8:29-9:20, 9:64-10:19, 10:36-63, FIG. 5A-B; • ‘407 Provisional at e.g. ¶¶ 61, 63-66, 69, 72-73, 75, Appx. A at 2, 10; • Prior documents from <i>Sonos, Inc. v. Google LLC</i>, 20-cv-881, including: 	<p><i>The Western District of Texas Court already construed this term to mean “a previously saved grouping of zone players according to a common theme.”</i></p> <p><u>INTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> • ‘206 Patent, Reasons for Allowance, ‘966 Patent, Reasons for Allowance; see also ‘885 Patent Reasons for Allowance. • ‘966 Patent, 2019-08-23 OA Response, e.g. at

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		<ul style="list-style-type: none"> ○ Sonos's Opening Claim Construction Brief, including all Exhibits; ○ Sonos's Reply Claim Construction Brief, including all Exhibits; ○ Google's Responsive Claim Construction Brief, including all Exhibits; <p>Google's Sur-Reply Claim Construction Brief, including all Exhibits.</p>	<p>18.</p> <ul style="list-style-type: none"> ● '206 Patent, 8:19-42, 8:56-9:3, claim 8, Figs. 5A-C, 6. ● '206 Provisional App. at 13; 2:22-37. <p style="text-align: center;"><u>EXTRINSIC EVIDENCE</u></p> <ul style="list-style-type: none"> ● Declaration of Kyriakakis dated June 1, 2021 (Case No. 6:20-cv-00881-ADA, Dkt 64-12) ● Google may introduce expert testimony from Dr. Kyriakakis regarding the ordinary meaning of this term to a person of ordinary skill in the art in the context of the intrinsic record, including the opinion that Google's proposed construction is consistent with that meaning. ● Hargrave's Communications Dictionary (2001) <p>zone (1) In an internetwork, a subset of nodes which, together, form a logical subdivision. A node can be part of one or more <i>zones</i>. A <i>zone</i> can encompass multiple networks and can cross network boundaries. (That is, it can apply to parts of several networks.) A <i>zone</i> may have a name associated with it that is used to simplify routing and service advertising. (2) In AppleTalk, a logical subset of nodes which together form a subdivision. It can have an associated name, and a node can be part of one or more zones. The zone name is used to simplify routing and service advertising. A zone can encompass multiple networks and can cross network boundaries (that is, apply to parts of several networks).</p>